



U.S. DEPARTMENT OF ENERGY  
Office of Electricity Delivery and Energy Reliability  
Infrastructure Security and Energy Restoration

# ENERGY ASSURANCE DAILY

Monday Evening, May 09, 2016

## Major Developments

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### Update: About 1.07 Million b/d of Oil Sands Production Estimated Offline in Alberta May 9 as Fort McMurray Wildfire Forces Additional Curtailments

The massive Fort McMurray wildfire in Alberta, which began burning on May 1, has caused 11 oil sands production companies and three oil pipeline operators to curb activities, shutting down about 1.07 million b/d of oil sands production as of Sunday evening. The region can produce roughly 2.2 million b/d. Energy facilities themselves have largely escaped damage from the flames but production has been curtailed due to mandatory evacuations of workers, shutdowns of takeaway oil pipelines, and diluent supply issues. Only one oil sands production site, CNOOC unit Nexen's Long Lake facility, has reported sustaining minor damage. Provincial fire officials said on Sunday they expected to hold flames back from Suncor Energy's main oil sands plant north of Fort McMurray. Thousands of evacuees—many of whom are essential oil industry workers—are camped out in nearby towns since Fort McMurray's gas has been turned off, its power grid is damaged, and the water is undrinkable. Alberta's government said Monday the fire had consumed 161,000 hectares (395,000 acres). Temperatures are forecast to remain cool over the next several days, which is expected to slow the growth of the fire and aid firefighters. This follows a week of unseasonably warm temperatures in the region. Fires around the oil sands last summer knocked out 10 percent of capacity but the two firms affected were back up and running within 2 weeks. More than 20 oil operations are clustered in a 60-mile radius of the city, according to government data. The following companies have reported impacts as of Monday. The red text under each company below indicates an update to the wildfire impacts reported in Friday's EAD publication.

- **Suncor Energy** said there has been no damage to its assets and is beginning to implement its plan for a return to operations. Suncor anticipates it will commence its restart once it can do so safely and depending on the availability of critical third-party pipeline infrastructure. Suncor closed its 350,000 b/d main mining site, and its MacKay River and Firebag thermal oil sands operations on May 4. It cited the precautionary shut-in of takeaway pipelines and limited availability of diluent. Prior to the fire, Suncor said it was operating at reduced rates of approximately 300,000 b/d because of a turnaround.
- **Syncrude**, a 315,000 b/d oil sands project owned by a consortium of companies, including majority owner Suncor, on Saturday completed a safe and orderly shut-down of its facilities and is in the process of planning its return to operations.
- **Royal Dutch Shell Plc** said it had closed its Muskeg River and Jackpine oil sands mines, whose combined capacity is 255,000 b/d, on May 4.
- **Nexen Energy** on Saturday said its Long Lake oil Sand facility, which was shut on May 4, was under smoke from the wildfire but is believed to be unaffected, according to a province official. Long Lake can produce around 50,000 b/d of synthetic crude but has been operating at reduced rates since late January due to an explosion at the plant.
- **ConocoPhillips** said on May 5 it had shut its 30,000 b/d Surmont operations south of Fort McMurray, and evacuated the site.
- **Husky Energy** on Sunday shut production at its 30,000 b/d Sunrise Energy Project. Husky had previously reduced operations to 10,000 b/d.
- **Connacher Oil and Gas Ltd** said on May 5 it was restoring production at its Great Divide operation, which is 50 miles south of the city, back up to 8,000 b/d, after cutting it to 4,000 b/d on Wednesday. The operation produced 14,000 b/d in the fourth quarter.
- **Canadian Natural Resources Ltd** has cut output by an unspecified amount at its Horizon project.
- **Statoil ASA** on Monday said it is suspending all production at its 20,000 b/d Leismer facility in northern Alberta. Statoil said production would remain suspended until midstream terminals needed to transport crude oil via pipeline reopen.

- **Athabasca Oil Corp** said on May 5 it shut its Hangingstone project and evacuated all personnel. At the time, the company said it was in the process of shutting down the well sites and the central facility. The project was expected to produce 12,000 b/d by the fourth quarter 2016.
- **Imperial Oil Ltd** said on May 6 that as a precaution, workforce levels at its Kearl oil sands mining project have been reduced to essential staff only and production has been reduced by an unspecified amount. It said its physical plant was unaffected by the fires.
- **Cenovus** said on May 6 that essential staff were maintaining full production at its Christina Lake oil sands site. The company had previously sent non-essential staff at the site home.
- **MEG Energy, and Japan Canada Oil Sands Ltd.** said their operations near Fort McMurray were not affected.
- **Enbridge Inc.** said all pipelines in and out of its Cheecham terminal had been isolated and shut down on May 4. The terminal was shut down to allow employees to evacuate. Enbridge said operations at its Athabasca terminal had been reduced while Line 19, south of Kirby Lake, continues to operate.
- **Keyera Corp** said its South Cheecham rail and truck terminal, 47 miles south of Fort McMurray, had been evacuated and shut down on May 5. South Cheecham is a joint venture between Keyera and Enbridge.
- **Inter Pipeline** said its 346,000 b/d Corridor pipeline system, which serves Shell's oil sands facilities, was ready to be reopened once Shell resumes operations. Inter Pipelines' 540,000 b/d Polaris diluent pipeline was reopened after a one-day shutdown.
- **Pembina's** Algar to Cheecham Lateral remains fully operational but is not delivering due to the shutdown of downstream facilities. All other Pembina facilities in the Fort McMurray area remain fully operational.
- **TransCanada Corp** said it does not expect the wildfire to affect deliveries of natural gas. The nearest pipeline is about 12 miles west of the current wildfire.

Reuters, 5:20 May 8, 2016

Reuters, 7:00 May 9, 2016

Reuters, 11:45 May 9, 2016

Reuters, 9:47 May 8, 2016

## **BP, Suncor Energy, Phillips 66 Issue Force Majeure on Canadian Crude Due to Alberta Wildfire May 6**

BP, Suncor Energy, and Phillips 66 on Friday warned they will not be able to deliver on some contracts for Canadian crude, a further sign that output cuts due to wildfires are curbing supplies from the Alberta oil sands region. BP Plc said it had alerted customers to a force majeure event at one of its suppliers, which means several grades of Canadian crude oil will not be as readily available to its customers through the rest of May. BP produces oil in Canada via a partnership with Husky Energy Inc. Suncor Energy said it had issued various force majeure notifications to customers, service providers, and other third party contractors that will be affected by reduced operations in the region. Phillips 66 issued notice of force majeure on Canadian crude deliveries due to interruptions in third-party oil production in Canada's oil sands. A person familiar with BP's U.S. refining operations said supplies to its 405,000 b/d Whiting, Indiana; 225,000 b/d Cherry Point, Washington; and 135,000 b/d Toledo, Ohio refineries have not been affected. The U.S. imports about 3.5 million b/d of Canadian crude oil. Record U.S. inventories and plentiful supplies in storage in Western Canada will offset some of the shutdown. According to Genscape, total inventories in Alberta were 26.5 million barrels at the end of April, equivalent to less than a month of output currently offline.

Reuters, 9:28 May 6, 2016

## **Update: Alberta Oil Sands Producers Shut Majority of Power Generation Due to Wildfire May 9 – AESO**

Cogeneration power plants in the Fort McMurray area were operating at about 18 percent of capacity early Monday, down from around 30 percent Friday afternoon, as oil sands producers in the area continue to shut their operations. There are about 3,200 MW of power cogeneration capacity serving the oil sands industry in the province of Alberta, about two-thirds of which is located in the Fort McMurray area. Of the roughly 2,200 MW of cogeneration capacity in the fire-ravaged area, about 650 MW was operating on Friday afternoon while less than 400 MW was operating Monday morning, according to data from the Alberta Electric System Operator (AESO), the operator of the province's power grid. Before the fire reached Fort McMurray, the cogeneration units in the area were producing about 1,300 MW of power, according to local media reports.

Reuters, 10:57 May 9, 2016

### Severe Thunderstorms Knock Out Power to 48,200 Ameren Customers in Illinois May 7

Severe thunderstorms knocked out power to 48,200 Ameren customers in Illinois on Saturday afternoon. The storms produced high winds with gusts up to 70 mph, downing trees and power lines. Ameren said 15 large capacity lines were damaged in the storm. The utility late Sunday night said nearly all power was restored.

<http://apps.ameren.com/outage/outagemap.aspx?state=IL>

<https://twitter.com/AmerenIllinois>

### Strong Storms, High Winds Knock Out Power to Over 43,000 Customers in Texas May 9

Strong storms with wind gusts of up to 60 mph knocked out power to at least 43,944 customers in Texas on Monday morning. Utilities reported the strong winds downed trees and power lines contributing to the power outages. As of 3:30 p.m. EDT Monday, 6,920 customers remained without power. The table below shows total affected customers and the latest reported outages by utility. The “Affected” column shows the total count of customers that lost power at one point or another over the course of the storm for each utility. These outages may not have occurred concurrently and are not the same as peak outages.

Texas Customer Power Outages			
May 9, 2016			
Electric Utility	State	Affected	Latest Reported
Centerpoint Entergy	TX	38,000	4,553
Entergy	TX	2,845	1,010
AEP	TX	1,469	519
Oncor	TX	1,630	838
<b>TOTAL*</b>		<b>43,944</b>	<b>6,920</b>

\*Total outages represent only electric utilities listed in this table.

Sources:

<https://twitter.com/cnpalerts>

<http://gis.centerpointenergy.com/outagetracker/>

[http://www.etrviewoutage.com/external/tx.aspx?\\_ga=1.3872432.1071334291.1461772914](http://www.etrviewoutage.com/external/tx.aspx?_ga=1.3872432.1071334291.1461772914)

<http://stormcenter.oncor.com/external/default.html>

<https://www.aeptexas.com/outages/outageMap.aspx>

<http://www.khou.com/news/local/neighborhood/gusty-winds-knock-out-power-down-trees-across-houston/182327871>

### NB Power Reports Faulty Equipment Knocked Out Power to 20,000 Customers in New Brunswick May 8

NB Power on Sunday morning reported approximately 20,000 customers in Kennebecasis Valley, New Brunswick were without power due to a transmission outage caused by faulty equipment. By Sunday afternoon, all customers had power restored.

<http://www.nbpower.com/Open/Outages.aspx>

[https://twitter.com/nb\\_power](https://twitter.com/nb_power)

<http://www.cbc.ca/news/canada/new-brunswick/nb-power-outage-kennebecasis-1.3572395>

### Update: Entergy’s 653 MW Pilgrim Nuclear Unit 1 in Massachusetts at Full Power by May 7

On the morning of May 6 the unit was operating at 50 percent, reduced from full power on May 5.

<http://www.nrc.gov/reading-rm/doc-collections/event-status/reactor-status/2016/>

### Exelon’s 1,093 MW Peach Bottom Nuclear Unit 3 in Pennsylvania Reduced to 90 Percent by May 7

On the morning of May 6 the unit was operating at full power.

<http://www.nrc.gov/reading-rm/doc-collections/event-status/reactor-status/2016/>

### Update: TVA’s 1,126 MW Sequoyah Nuclear Unit 2 in Tennessee Shut May 6, Restarts, Ramps Up to 12 Percent by May 9

The unit shut from 35 percent power on May 6.

<http://www.nrc.gov/reading-rm/doc-collections/event-status/reactor-status/2016/>

### **Update: Exelon's 855 MW Quad Cities Nuclear Unit 2 in Illinois at Full Power by May 7**

On the morning of May 6 the unit was operating at 87 percent, reduced from full power on May 5.

<http://www.nrc.gov/reading-rm/doc-collections/event-status/reactor-status/2016/>

### **Update: STP's 1,251 MW South Texas Nuclear Unit 1 in Texas at Full Power by May 7**

On the morning of May 6 the unit restarted and ramped up to 13 percent. The unit shut from full power on May 1 due to a generator lockout.

<http://www.nrc.gov/reading-rm/doc-collections/event-status/reactor-status/2016/>

<http://www.nrc.gov/reading-rm/doc-collections/event-status/event/2016/20160502en.html>

### **Energy Northwest's 1,107 MW Columbia Generating Station Nuclear Unit in Washington Reduced to 87 Percent by May 9**

On the morning of May 8 the unit was operating at full power.

<http://www.nrc.gov/reading-rm/doc-collections/event-status/reactor-status/2016/>

### **Calpine's 604 MW Otay Mesa Gas-fired Unit in California Shut by May 8**

The unit entered an unplanned outage.

<http://content.caiso.com/unitstatus/data/unitstatus201605081515.html>

### **Watson Cogeneration Company's 417 MW Gas-fired Unit in California Reduced by May 7**

The unit entered an unplanned curtailment of 209 MW.

<http://content.caiso.com/unitstatus/data/unitstatus201605071515.html>

### **Solar Partners' 133 MW Ivanpah Solar Unit 2 in California Shut by May 7**

The unit entered an unplanned outage.

<http://content.caiso.com/unitstatus/data/unitstatus201605071515.html>

### **Exelon Says It Will Move Forward with Early Retirement of Its 1,138 MW Clinton, 2,018 MW Quad Cities Nuclear Facilities in Illinois if Adequate Legislation Not Passed**

Exelon on Friday announced that it will need to move forward with the early retirements of its Clinton and Quad Cities nuclear facilities if adequate legislation is not passed during the spring Illinois legislative session, scheduled to end on May 31 and if, for Quad Cities, adequate legislation is not passed and the plant does not clear the upcoming PJM capacity auction later this month. Without these results, Exelon would plan to retire Clinton Power Station in on June 1, 2017, and Quad Cities Generating Station on June 1, 2018.

<http://www.exeloncorp.com/newsroom/exelon-statement-on-early-retirement-of-clinton-and-quad-cities-nuclear>

## ***Petroleum***

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### **BP's 413,500 b/d Whiting, Indiana Refinery Cuts Back Production on Small CDU May 8 – Sources**

BP Plc reduced production on Sunday night on the smallest crude distillation unit (CDU) at its Whiting, Indiana refinery, sources familiar with plant operations said on Monday. The sources said production on the 70,000 b/d Pipe Still 11A CDU was continuing, albeit at reduced rates. The unit malfunctioned on Saturday.

Reuters, 11:38 May 9, 2016

### **Update: LyondellBasell's 263,776 b/d Houston, Texas Refinery Expected to Ramp up Output May 8 – Sources**

LyondellBasell Industries is expected to ramp up production at its Houston, Texas refinery after restarting the small crude distillation unit (CDU) on Saturday following a month-long outage, Gulf Coast market sources said. Genscape said the 120,000 b/d Unit 536 CDU restarted on Saturday night. Unit 536 was shut on April 11 to repair leaks on the attached 91,000 b/d vacuum distillation unit (VDU). The VDU also restarted, Genscape said. The first attempt to restart Unit 536 failed on Friday, sources said. The refinery's production fell to 85,000 b/d after the 91,000 b/d VDU attached to the 147,000 b/d Unit 537 CDU was shut on April 15 to repair leaks. That came after the Unit 536 shutdown, and a 42,000 b/d coker at the refinery was idled for up to three months after a massive fire on April 8. The Unit 537 VDU restarted on May 1. With the refinery's CDUs and VDUs back in operation, Lyondell hopes to reach a crude oil intake of up to 200,000 b/d.

Reuters, 8:46 May 8, 2016

## **Update: ExxonMobil Plans to Restart Its 149,500 b/d Torrance, California Refinery May 9 – Local Media**

ExxonMobil Corp's Torrance, California, refinery is expected to come back online Monday night, CBS Los Angeles reported on Sunday. The refinery was supposed to restart Saturday night but the company delayed it over what it called "unexpected operational delays," according to the news website.

Reuters, 10:55 May 8, 2016

<http://cbsloc.al/1WUc7MT>

## **Imperial Reports Boiler Taken Offline at Its 121,000 b/d Sarnia, Ontario Refinery May 8**

Imperial Oil on Sunday reported that the main boiler at its Sarnia, Ontario refinery was taken out of service, according to a message on a community information phone line.

Reuters, 9:50 May 8, 2016

## **Natural Gas**

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### **Update: Spectra, TETCO Says Physical Capacity Restored Beginning Gas Day May 10, Unplanned Outage Continues at Its Delmont Compressor Station in Pennsylvania**

Spectra Energy Corp and Texas Eastern Transmission (TETCO) on Monday said that the restoration of partial physical capacity totaling approximately 1,162 MMcf/d of natural gas will be available beginning on Gas Day May 10 to move supply through the Delmont compressor station on its Texas Eastern pipeline in western Pennsylvania after an explosion on April 29 damaged the 30-inch pipeline. In addition, two meters connecting the Columbia Midstream and Dominion Transmission's meters in Westmoreland County will be available for flow beginning Gas Day May 10 as well. As repair efforts to restore capacity are continuing, TETCO has and continues to accept nominations for deliveries through Delmont, to the extent those deliveries can be accomplished by other operational means. On April 29, an explosion damaged one of four parallel TETCO transmission lines in Salem Township, leading Spectra to isolate all four lines in the pipeline corridor and shut all flows through the Delmont Compressor Station. At the time of the explosion, Spectra said three of the four lines were operating. One line was down for maintenance. The compressor was not damaged. Before the explosion, about 1.3 Bcf/d of gas was moving through the impacted area.

<https://infopost.spectraenergy.com/infopost/default.asp?pipe=TE>

<http://www.spectraenergy.com/announcements/>

### **ExxonMobil Reports Unit Shut at Its 65 MMcf/d Dollarhide Gas Plant in Texas May 7**

ExxonMobil reports unit P-9 shutdown due to a power failure in the field. The blown fuse was repaired and once power was restored, the unit was restarted.

<http://www2.tceq.texas.gov/oce/eer/index.cfm?fuseaction=main.getDetails&target=232837>

### **DCP Midstream Reports Turbine Shut at Its 160 MMcf/d Goldsmith Gas Plant in Texas May 7**

DCP Midstream reported turbine B shut down on vibration to avoid extensive and permanent damage to the unit. With the turbine down, the amount of gas the plant can process was reduced and the increased pressure in the system caused the gas to be routed to the flare for safety reasons. The vibrations in turbine B were eliminated and the unit was restarted, returning gas flow to normal conditions. With the plant at normal operations, the gas was no longer routed to the flare and the emission event stopped.

<http://www2.tceq.texas.gov/oce/eer/index.cfm?fuseaction=main.getDetails&target=232841>

### **NextDecade Files FERC Application for Its 27 MPTA Rio Grande LNG Export Facility, Rio Bravo Pipeline in Texas May 5**

NextDecade, LLC on May 5 announced it filed an application with the Federal Energy Regulatory Commission (FERC) for authorization to site, construct, and operate Rio Grande LNG, a proposed 27 MPTA LNG export facility near Brownsville, Texas and the Rio Bravo Pipeline, a 137-mile pipeline system that will provide the facility with its feed gas. NextDecade expects to receive authorization from FERC by the end of the first quarter of 2017 and expects to begin exporting LNG from Rio Grande LNG by the end of 2020.

<http://next-decade.com/2016/05/nextdecade-files-ferc/>

## Other News

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### DOE Announces \$90 Million Funding for Design and Construction of Manufacturing of Biofuels, Bioproducts, Biopower May 6

The Department of Energy (DOE) on Friday announced up to \$90 million in project funding focused on designing, constructing, and operating integrated biorefinery facilities. Project Development for Pilot and Demonstration Scale Manufacturing of Biofuels, Bioproducts, and Biopower is a funding opportunity meant to assist in the construction of bioenergy infrastructure to integrate cutting-edge pretreatment, process, and convergence technologies.

Biorefineries are modeled after petroleum refineries, but use domestic biomass sources instead of crude oil, or other fossil fuels to produce biofuels, bioproducts, and biopower.

<http://energy.gov/articles/energy-department-announces-funding-design-and-construction-manufacturing-biofuels>

## International News

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### Iran Oil, Gas Condensate Exports Reaches 2.45 Million b/d – Oil Minister

Iran's oil and gas condensate exports reached 2.45 million b/d, the Oil Minister was quoted as saying by ministry news agency SHANA on Saturday. He also said there was no obstacle to Iran regaining its lost share of the oil market after the lifting of international sanctions against Tehran in January.

Reuters, 3:57 May 7, 2016

### Update: Libya's Oil Output Cut amid Export Standoff

Libya's crude oil output was cut amid a standoff over export rights that prevented trading giant Glencore from loading a tanker. Libya is producing around 200,000 to 220,000 b/d after the largest National Oil Corp (NOC) subsidiary, AGOCO, was forced to cut its output by more than half, an NOC official said. Production from AGOCO's Messla and Sarir fields has been cut to less than 100,000 b/d from 230,000 b/d, as crude loadings at the Marsa el-Hariga port in eastern Libya remain suspended, a spokesman for AGOCO said. The spokesman said there were no technical or administrative problems with production at the two fields. The dispute over exports is between the internationally backed NOC in Tripoli and a parallel version of the NOC created by a rival Libyan government in the east of the country.

Reuters, 8:57 May 9, 2016

### Update: Nigeria's Oil Output Falls to 1.69 Million b/d as Violence Spreads

A series of attacks on Nigeria's oil infrastructure has pushed its output of crude close to a 22-year low, Reuters data shows. Shell workers at Nigeria's Bonga oilfield in the southern Niger Delta were evacuated following a militant threat, a senior labor union official said on Monday, while attacks late last week forced Chevron to shut its Okan offshore facility, taking out 35,000 b/d. While Shell said the latest unrest had not yet impacted production, its Forcados field is still closed and under force majeure following a February subsea pipeline attack, taking out 250,000 b/d. The violence has cut production to roughly 1.69 million b/d in May, the lowest since at least June 2007, when production fell to 1.68 million b/d, International Energy Agency data shows. A small reduction from any field would quickly send output to the next low, seen in August 1994, when it hit 1.46 million b/d, according to the IEA data.

Reuters, 1:51 May 9, 2016

## Energy Prices

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U.S. Oil and Gas Prices			
May 9, 2016			
	Today	Week Ago	Year Ago
<b>CRUDE OIL</b> <b>West Texas Intermediate U.S.</b> \$/Barrel	43.40	44.70	59.36
<b>NATURAL GAS</b> <b>Henry Hub</b> \$/Million Btu	1.84	1.91	2.78

Source: Reuters

## Links

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***This Week in Petroleum*** from the U.S. Energy Information Administration (EIA)

<http://www.eia.gov/oog/info/twip/twip.asp>

Updated every Wednesday.

***Weekly Petroleum Status Report*** from EIA

[http://www.eia.gov/oil\\_gas/petroleum/data\\_publications/weekly\\_petroleum\\_status\\_report/wpsr.html](http://www.eia.gov/oil_gas/petroleum/data_publications/weekly_petroleum_status_report/wpsr.html)

Updated after 10:30 AM & 1:00 PM ET every Wednesday.

***Natural Gas Weekly Update*** from EIA

<http://www.eia.gov/oog/info/ngw/ngupdate.asp>

Updated after 2:00 PM ET every Thursday.

### ENERGY ASSURANCE DAILY

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<http://www.oe.netl.doe.gov/ead.aspx>

Please direct comments and questions to: [ead@oe.netl.doe.gov](mailto:ead@oe.netl.doe.gov)